

In the Claims:

Please cancel claims 1-29 and add the following new claims 30-48.

30. A method for controlling an emission system, the system having an engine and an exhaust through which exhaust gasses flow, said exhaust having at least a first and second catalyst arranged in parallel adapted for reducing NOx emissions with incoming reductants, and said exhaust also having at least one reductant delivery device, said reductant delivery device located downstream of engine, the method comprising:

operating in a first mode where exhaust gasses flow to said first catalyst, and during at least a first interval while in said first mode, providing reductant from the reductant delivery device into the exhaust system that reaches said second catalyst to reduce NOx in said second catalyst; and

operating in a second mode where exhaust gasses flow to said second catalyst, and during at least a second interval while in said second mode, providing reductant from the reductant delivery device into the exhaust system that reaches said first catalyst to reduce NOx in said first catalyst, wherein the reductant injector is in the engine exhaust, and said first catalyst and said second catalyst have a differing characteristic.

31. The method of claim 1 wherein said differing characteristic is a differing capacity.

32. The method of claim 1 wherein said engine is a diesel engine.

33. A method for controlling an emission system, the system having an engine and an exhaust through which exhaust gasses flow, said exhaust having at least a first and second catalyst arranged in parallel adapted for reducing NO<sub>x</sub> emissions with incoming reductants, and said exhaust also having at least one reductant delivery device, said reductant delivery device located downstream of engine, the method comprising:

when requested based on a first operating condition, operating in a first mode where exhaust gasses flow to said first catalyst, and during at least a first interval while in said first mode, providing reductant from the reductant delivery device into the exhaust system that reaches said second catalyst to reduce NO<sub>x</sub> in said second catalyst; and

when requested based on a second operating condition, operating in a second mode where exhaust gasses flow to said second catalyst, and during at least a second interval while in said second mode, providing reductant from the reductant delivery device into the exhaust system that reaches said first catalyst to reduce NO<sub>x</sub> in said first catalyst, wherein the reductant injector is in the engine exhaust.

34. The method of claim 4 wherein said first condition is a condition of said second catalyst.

35. The method of claim 5 wherein said first condition is an amount of NO<sub>x</sub> stored in said second catalyst.

36. The method of claim 4 wherein said second condition is a condition of said first catalyst.

37. The method of claim 7 wherein said second condition is an amount of NO<sub>x</sub> stored in said first catalyst.

38. The method of claim 4 wherein said reductant delivery device is coupled to a valve in the engine exhaust.

39. The method of claim 9 wherein said reductant delivery device is a diesel fuel injector.

40. A method for controlling an emission system, the system having an engine and an exhaust through which exhaust gasses flow, said exhaust having at least a first and second catalyst arranged in parallel capable of reducing NOx emissions with incoming reductants, and said exhaust also having at least one reductant delivery device, said reductant delivery device located downstream of engine, the method comprising:

when requested based on a first operating condition, diverting at least a portion of exhaust gas flow from said second catalyst and providing reductant from the reductant delivery device into the exhaust system that reaches said second catalyst to reduce NOx in said second catalyst; and

when requested based on a second operating condition, diverting at least a portion of exhaust gas flow from said first catalyst and providing reductant from the reductant delivery device into the exhaust system that reaches said first catalyst to reduce NOx in said first catalyst, wherein the reductant delivery device is in the engine exhaust.

41. The method of claim 11 wherein all of the exhaust gas flow is diverted from the second catalyst when requested based on said first operating condition.

42. The method of claim 11 wherein all of the exhaust gas flow is diverted from the first catalyst when requested based on said second operating condition.

43. The method of claim 11 wherein said reductant delivery device is a diesel fuel injector.

44. The method of claim 11 wherein said first condition is a condition of said second catalyst.

45. The method of claim 15 wherein said first condition is an amount of NOx stored in said second catalyst.

46. The method of claim 11 wherein said second condition is a condition of said first catalyst.

47. The method of claim 17 wherein said second condition is an amount of NOx stored in said first catalyst.

48. The method of claim 11 wherein said reductant delivery device is coupled to an exhaust valve located in the exhaust that performs said diversion.